

MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
AIR QUALITY TECHNICAL ADVISORY COMMITTEE MEETING

Thursday, January 25, 2018
MAG Office
Phoenix, Arizona

MEMBERS ATTENDING

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| Jamie McCullough, El Mirage, Chair | * Dave Berry, Arizona Motor Transport Association |
| Jon Sherrill, Chandler, Vice Chair | Liz Foster, Maricopa County Farm Bureau |
| # Drew Bryck, Avondale | * Steve Trussell, Arizona Rock Products Association |
| * Robert van den Akker, Buckeye | * Greater Phoenix Chamber of Commerce |
| Christian Collins for Brent Billingsley, Florence | Amanda McGennis, Associated General Contractors |
| * Hondo Judd, Gilbert | * Spencer Kamps, Homebuilders Association of Central Arizona |
| Megan Sheldon, Glendale | * Mannie Carpenter, Valley Forward |
| * Cato Esquivel, Goodyear | * Kai Umeda, University of Arizona Cooperative Extension |
| # Kazi Haque, Maricopa | Beverly Chenausky, Arizona Department of Transportation |
| Lauren Whittaker, Mesa | Brian Parkey, Arizona Department of Environmental Quality |
| # Rhonda Humbles for Stuart Kent, Peoria | * Environmental Protection Agency |
| Joe Gibbs for Rosanne Albright, Phoenix | Hanna Valenzuela for Hether Krause, Maricopa County Air Quality Department |
| * Antonio DeLaCruz, Surprise | * Scott DiBiase, Pinal County |
| Oddvar Tveit, Tempe | * Michelle Wilson, Arizona Department of Agriculture, Weights and Measures |
| * Youngtown | @* Ed Stillings, Federal Highway Administration |
| # Ramona Simpson, Queen Creek | * JC Porter, Arizona State University |
| Tim Conner, Scottsdale | Stan Belone, Salt River Pima-Maricopa Indian Community |
| # Walter Bouchard, American Lung Association of Arizona | |
| Kyle Heckel for Kristin Watt, Salt River Project | |
| Rebecca Hudson-Nunez, Southwest Gas Corporation | |
| Michael Denby, Arizona Public Service Company | |
| * Susie Stevens, Western States Petroleum Association | |
| Amanda Luecker for Robert Forrest, Valley Metro/RPTA | |

* Members neither present nor represented by proxy.

Participated via telephone conference call.

+ Participated via video conference call.

@ Ex-Officio member, non-voting member.

OTHERS PRESENT

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| Lindy Bauer, Maricopa Association of Governments | Joonwon Joo, Arizona Department of Transportation |
| Julie Hoffman, Maricopa Association of Governments | Bob Huhn, Maricopa County Air Quality Department |
| Matt Poppen, Maricopa Association of Governments | |
| Kara Maynard, Maricopa Association of Governments | |
| Dean Giles, Maricopa Association of Governments | |
| Taejoo Shin, Maricopa Association of Governments | |
| Randy Sedlacek, Maricopa Association of Governments | |

1. Call to Order

A meeting of the Maricopa Association of Governments (MAG) Air Quality Technical Advisory Committee (AQTAC) was conducted on January 25, 2018. Jamie McCullough, City of El Mirage, Chair, called the meeting to order at approximately 1:35 p.m. Ramona Simpson, Town of Queen Creek; Drew Bryck, City of Avondale; Rhonda Humbles, City of Peoria; Walt Bouchard, American Lung Association of Arizona; and Kazi Haque, City of Maricopa, attended the meeting via telephone conference call.

Chair McCullough indicated that copies of the handouts for the meeting are available. She noted for members attending through audio conference, the presentations for the meeting will be posted on the MAG website under Materials for the Committee agenda, whenever possible. If it is not possible to post them before the meeting, they will be posted after the meeting.

2. Call to the Audience

Chair McCullough stated that the Call to the Audience provides an opportunity for members of the public to address the Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Comment cards for those wishing to speak are available on the tables adjacent to the doorways inside the meeting room. Members of the public will be requested not to exceed a three minute time period for their comments. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless the Committee requests an exception to this limit. Please note that those wishing to comment on action agenda items will be given an opportunity at the time the item is heard. Chair McCullough noted that no public comment cards had been received.

3. Approval of the October 26, 2017 Meeting Minutes

The Committee reviewed the minutes from the October 26, 2017 meeting. Tim Conner, City of Scottsdale, moved and Michael Denby, Arizona Public Service, seconded, and the motion to approve the October 26, 2017 meeting minutes carried unanimously.

4. Update on the Winter Holiday 2017 Burn Cleaner, Burn Better Campaign

Bob Huhn, Maricopa County Air Quality Department, provided an update on the 2017 Burn Cleaner, Burn Better Campaign. He stated that this year the campaign reached more people than any previous campaign.

Mr. Huhn discussed the Burn Cleaner, Burn Better Campaign outreach. Campaign outreach included: billboards, some of which were purchased by Maricopa County and some purchased by sponsors (in English and Spanish); light rail wrap; television (TV), radio, online, and newspaper sources (in English and Spanish); grocery store signage, weekly advertisements, and in-house grocery store radio; digital media website advertisement and banners (TV stations); Arizona Department of Transportation signs; Phoenix water bill; CleanAirMakeMore.com; social media; Nextdoor; and public and private partnerships. Mr. Huhn stated that Next Door is new this year, as well as the in-dash messaging through Columbia Broadcasting System (CBS) Radio.

Mr. Huhn reported that there was more televised media coverage during this campaign than in previous years. The paid media coverage included: 15 second bookend TV spots; 30 second TV spots; radio spots; social media posts; Time Warner Cable crawls; digital push down website advertisements; and in-dash messaging through CBS Radio. The non-paid coverage included: news and weather coverage; community shows; and live segments. Mr. Huhn indicated that a majority of the newscasts covered No Burn Days, the air quality, and how much fireworks impacted the PM-2.5 concentration levels. He played a short newscast that aired on CBS Channel 5. Mr. Huhn commented that television helped spread the campaign message. He mentioned that the newscasts reported on the poor air quality; however, they also promoted the No Burn Day messaging. He indicated that the Burn Cleaner, Burn Better Campaign is the focus; however there were a lot of No Burn Days. Mr. Huhn indicated that Maricopa County is looking for areas where the campaign can improve.

Mr. Huhn discussed the campaign impressions for paid TV, radio, and billboards. He added that this does not include the ADOT signs, billboards that were purchased by sponsors, social media, and the light rail wrap. Mr. Huhn noted that the data analysis is not complete and that the following data includes 66 percent of the total media buys. He reported that the total impressions are currently at 37.9 million, with a total cost of \$1.76 per 1,000 impressions. Mr. Huhn estimated that once all of the data is reported, the total impressions will likely be over 50 million, which is a significant increase from last year. The total cost per 1,000 impressions is expected to rise to approximately \$2.

Mr. Huhn discussed that the mobile application downloads and social media impressions experienced an increase this year. He stated that the mobile application had 1,022 downloads, which is up from 822 downloads last campaign season. In addition, Twitter had 25,200 and Facebook had 170,759 impressions, significantly higher than previous years. Mr. Huhn stated that Nextdoor was utilized for the first time in the 2017/2018 campaign and 497,551 residents were reached. He indicated that Nextdoor is a social media tool that aided in relaying campaign message through alerts. Mr. Huhn stated that Maricopa County will utilize Nextdoor in the next campaign; however, comments will not be allowed through the application due to a large volume of comments. He noted that the campaign received many comments that were all over the board, from people who felt there were not enough No Burn Days to people who felt there were too many.

Mr. Huhn thanked all of the sponsors of the Burn Cleaner, Burn Better Campaign. He thanked Bashas' who has been a partner since the campaign was initiated. He stated that twice a month Bashas' features the campaign in the "Community Corner" statewide advertisement that garners 1.6 million impressions (\$3,000 value). In addition, Bashas' runs 30-second Burn Cleaner, Burn Better Campaign messages in English and Spanish in all Maricopa County Bashas' and Food City stores (\$866,040 value). Mr. Huhn stated that Bashas' post signage at firewood displays or on the front and exit doors if there are no firewood displays (\$112,224 value). He added that Facebook posts on December 14, 22, and 29 in 2017 totaled 3,026 impressions (\$30.26 value). Mr. Huhn indicated that the Bashas' campaign support value totaled \$981,294.26 and aided in reaching a larger audience than the campaign could have on it's own.

Mr. Huhn discussed the official PM-2.5 Health Watch and High Pollution Advisories/No Burn Days during the winter holiday season. The official No Burn Days totaled seven days, which included: December 24, 25, 26, 30 and 31 in 2017 and January 1 and 2 in 2018. There were six

days with PM-2.5 exceedances: December 23, 24, 25, 26, and 31 in 2017 and January 1, 2018. Mr. Huhn provided a recap of the last winter season in which there were only two No Burn Days: December 18 and 31 in 2016. The January 1, 2017 No Burn Day was rescinded. He stated that there were no exceedances of the PM-2.5 standard in the 2016/2017 winter season.

Mr. Huhn presented two graphs that display the PM-2.5 averages for New Year's Eve from 2011 to 2017 and New Year's Day from year 2012 to 2018. He noted that the highest concentration levels occurred at the South Phoenix, West Phoenix, and Durango Complex monitors, however the levels were elevated throughout the region. Mr. Huhn commented that PM-2.5 averages for New Year's Day were low in 2017 and 2015 due to meteorology.

Mr. Huhn displayed the PM-2.5 five minute average concentrations during the New Year celebrations for the West Phoenix and Mesa monitors. He noted that PM-10 exceeded on January 1, 2018 due to the very high PM-2.5 concentration levels. Mr. Huhn stated that the graph not only displays that there were high concentrations around the region, but also that the activity from West Phoenix impacted the Mesa monitor. The Mesa monitor, being located further away from neighborhoods and fireworks, is impacted by smoke 45 minutes after midnight.

Mr. Huhn displayed the hourly PM-2.5 concentrations for December 2017 and January 2018. He indicated that the West Phoenix, South Phoenix, and Durango Complex monitors recorded high PM-2.5 concentrations on Christmas Eve, Christmas Day, New Year's Eve, and New Year's Day. Mr. Huhn stated that woodburning activity and fireworks contributed to the spike on New Year's Eve and New Year's Day. He mentioned that many residents utilized consumer fireworks early on New Year's Eve with continued use into New Year's Day, which contributed to the high concentration levels. Mr. Huhn indicated that the consumer fireworks contribute more significantly to the PM-2.5 concentrations than large, commercial firework displays.

Mr. Huhn presented timeline photos of PM-2.5 concentrations on December 31, 2017 and January 1, 2018 to show a progression through time. The PM-2.5 concentrations levels significantly increase between 4:00 p.m. and 7:00 p.m. on December 31, 2017 and continue to rise the remainder of the night and into the morning on January 1, 2018. The West Phoenix monitor had a reading of 723.5 micrograms per cubic meter at 1:00 a.m. on January 1, 2018. Mr. Huhn noted that the Indian School monitor listed is not an official Maricopa County monitor; however, it provides an idea of the air quality concentrations in that area.

Mr. Huhn discussed enforcement. He indicated that enforcement inspectors were busier this year than in previous years. The enforcement for 2017/2018 included: 205 complaints received; 1,067 canvassing letters sent; 224 unconfirmed burn letters sent; 14 warning notices; and zero notices of violation. Mr. Huhn explained that when a complaint is received from a neighborhood that has smoke, canvassing letters will be sent to that neighborhood or area if the specific source cannot be identified. Unconfirmed burn letters are sent when a complaint is filed for a specific address; however, the smoke cannot be verified. Mr. Huhn stated that 14 residents who were found burning wood on No Burn Days received a warning notice in which the next step would be a Notice of Violation. He commented that either through outreach or enforcement, the Burn Better, Burn Cleaner Campaign is looking to find effective ways to change the mindset of residents about woodburning and No Burn Days. Mr. Huhn stated that Maricopa County is open to ideas and feedback that anyone may have to aid in the success of the campaign.

Mr. Huhn presented the Maricopa County Fireplace Retrofit Program. He stated that the program has 261 total installs to date. In the 2017/2018 winter season, 67 air pollution reduction devices and 144 natural gas log sets have been installed for a total of 211 devices. In the 2016/2017 winter season, 38 air pollution reduction devices and 12 natural gas log sets were installed for a total of 50 devices. Mr. Huhn indicated that the program has a goal of 400 fireplace retrofits. He added that the air pollution reduction devices eliminate approximately 70 percent of emissions from woodburning fireplaces. He reported that approximately 120 homes are on the waiting list for retrofits and Maricopa County will continue with the fireplace retrofits.

Mr. Huhn discussed the Maricopa County Propane Fire Pit Program in coordination with Home Depot and the Arizona Propane Gas Association. He stated that the program will provide vouchers for \$75 off new propane fire pits purchased at select Home Depot stores. The Home Depot also provided discounts on propane fire pits. Mr. Huhn noted that the fire pits range in price. He indicated that the goal of the program was to provide 1,000 vouchers, which has been completed. Mr. Huhn reported that some have utilized the vouchers and some have indicated that they will not be utilizing the voucher. Maricopa County has released more vouchers with a February deadline in hopes of utilizing 1,000 vouchers. Mr. Huhn reported that approximately 150 vouchers have been utilized to date. He noted that the program encourages the use of cleaner burning propane devices rather than wood burning devices, to aid in the reduction of air pollution during the wood burning season.

5. Update on PM-10 Monitoring Data

Matt Poppen, Maricopa Association of Governments, provided an update on the PM-10 monitoring data for Maricopa County and the PM-10 nonattainment area. He stated that the 2017 PM-10 exceedances are provided at each place by date and monitor location.

Mr. Poppen displayed PM-10 monitoring data with the number of 24-hour PM-10 exceedance days in Maricopa County and the PM-10 nonattainment area. He indicated that eight exceedances occurred in 2017 in which five of the eight exceedance days are flagged as exceptional events due to a high wind dust event. Mr. Poppen explained that the PM-10 standard is attained when there is not more than one exceedance per year on average over a three year period. In order to avoid a violation of the PM-10 standard, there can be no more than three exceedances per monitoring site over a three year period.

Mr. Poppen presented two tables: the number of PM-10 exceedances within the Maricopa County PM-10 nonattainment area over the period of 2015 to 2017, one table with the exceptional events included and one with the exceptional events excluded. He stated that all of the PM-10 monitors meet the standard when exceptional events are removed. Mr. Poppen indicated that only one monitor, St. Johns, violates the standard when exceptional events are not excluded.

Mr. Poppen stated that the Arizona Department of Environmental Quality (ADEQ), Maricopa County, and MAG have begun working together with the Indian Communities to include their exceedances in the exceptional event documentation prepared by ADEQ on days when both state, local, and Indian Community monitors exceed on the same day. The collaboration should aid in expediting approval of exceptional event documentation by the Environmental Protection Agency (EPA) for state, local, and Indian Community monitors.

Mr. Poppen discussed the Durango Complex monitor. The Durango Complex monitor has three exceedances in 2017 due to stagnant conditions that are not eligible for classification as exceptional events. Mr. Poppen explained that the region experienced over 100 days without rain with calm, stagnant conditions that allowed PM-10 emissions from sources within the area to accumulate and cause the exceedances. He stated that prior MAG research has found that on stagnant days the PM-10 transport radius for sources is approximately 2 miles.

Mr. Poppen displayed a map of the two mile radius around the Durango Complex Monitor. He stated that some of the PM-10 sources within a two mile radius of the Durango Complex monitor include: agriculture; construction; fires and open burning; landfills; mulching operations; permitted industrial sources; onroad and nonroad vehicles; sand and gravel operations; trackout; unpaved haul, alley, and canal roads; unpaved parking lots and storage yards; unpaved shoulders; vacant lots, and waste transfer operations. Mr. Poppen noted that on stagnant days all of the sources need to stay vigilant in controlling PM-10 to avoid an exceedance at the monitor. PM-10 can stay elevated within an area for days during stagnant conditions. In order to avoid a violation of the PM-10 standard, there can be no more stagnant exceedances at the Durango Complex monitor in 2018 and 2019. Mr. Poppen stated that PM-10 prevention activities are critical in 2018 and 2019 to avoid a violation at the Durango Complex monitor.

Liz Foster, Maricopa County Farm Bureau, inquired if there are contacts in place with industries to call if the PM-10 levels are high in an area around a monitor. Mr. Poppen replied that Maricopa County and MAG are conducting outreach and have contacts with the MAG member agencies who have resources, control over vacant lots, and connections with the business and industries in an area. He stated that MAG member agencies are contacted and that Maricopa County also sends out alerts when PM-10 levels are elevated. Mr. Poppen noted that in 2017 when the stagnant exceedances occurred a special alert was sent. He indicated that Maricopa County also has air quality inspectors that are available to identify emission sources when levels are elevated. Mr. Poppen stated that these are just a portion of the exceedance prevention efforts and that many organizations, like the Associated General Contractors and sand and gravel operators, perform their own exceedance prevention efforts that are very helpful. Mr. Poppen indicated that all exceedance prevention efforts are helpful in preventing PM-10 exceedances.

Lindy Bauer, Maricopa Association of Governments, responded to Ms. Foster that just as the Farm Bureau is called if concentrations are elevated, MAG will contact business and industry, like the Associated General Contractors or the Homebuilders Association, when MAG has information that a source within business or industry may be creating PM-10 emissions. Ms. Bauer said that the efforts of business and industry at preventing exceedances is very helpful due to their extensive network. She stated that there is concern with the Durango Complex monitor exceedances since there can be no more exceedances at the monitor in 2018 and 2019.

Mr. Denby noted that the West 43rd Avenue monitor exceeded in 2017 on the same day as the Durango Complex monitor. He inquired on how granular the exceedance prevention effort can go, in that can specific sources be identified to be able to work with the emitting source directly. Mr. Poppen replied that typically there is a general haze that inspectors see that create a challenge to identify specific emission sources. He stated that it is rare that one particular source can be identified. Mr. Poppen noted that even during stagnant conditions, slight movement of the airmass does occur which can make it difficult to pinpoint a single emission source. He

explained that without detailed information from operators on emission levels, it is very challenging to specify specific emission sources.

Hana Valenzuela, Maricopa County, asked if the PM-2.5 levels were high on the 2017 exceedance days that could have been a contributing factor to PM-10 at the Durango Complex monitor. Mr. Poppen responded that the PM-2.5 standard was not exceeded on those days, however the levels could have been elevated. He indicated that he does not have the PM-2.5 monitoring data currently to verify the levels.

Ms. Bauer commented on identifying PM-10 emission sources. She provided an example of all terrain vehicle riders on a vacant lot that caused elevated PM-10 emissions at a monitor located in a neighborhood. Ms. Bauer indicated in this case, a specific source was identified, however it is a challenge at the Durango Complex monitor to pinpoint one source due to the variety of sources in the area. She stated that MAG encourages all sources to participate in prevention activities and take precautions to avoid exceedances of the PM-10 standard at the monitor.

Mr. Poppen noted that the West 43rd Avenue and Durango Complex monitors were only slightly over the PM-10 standard. He stated that the threshold for a PM-10 exceedance is 155 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The exceedance levels for the three exceedance days were as follows: November 30, 2017 the Durango Complex monitor exceeded at 158 $\mu\text{g}/\text{m}^3$; November 30, 2017 the West 43rd Avenue monitor exceeded at 160 $\mu\text{g}/\text{m}^3$; December 1, 2017 the Durango Complex monitor exceeded at 170 $\mu\text{g}/\text{m}^3$; and December 12, 2017 the Durango Complex monitor exceeded at 158 $\mu\text{g}/\text{m}^3$. Mr. Poppen indicated that even though the West 43rd Avenue monitor did not exceed on all three days, the levels were still in the 100 micrograms per cubic meter range.

Mr. Denby inquired about how this impacts the PM-10 plan. Mr. Poppen replied that the region is currently meeting the PM-10 standard. He stated at this point there is no impact, impacts were to occur if there were violations of the PM-10 standard.

Mr. Denby asked if there is one more exceedance at the Durango Complex monitor, that is not an exceptional event, in what way does this impact the attainment status. Mr. Poppen responded that if there was another exceedance, the region would be in violation of the standard. Mr. Poppen stated that the region would not be able to request a clean data finding if there are four exceedances, a violation of the standard, that cannot be classified as exceptional events.

6. Ozone Boundary Designations

Ms. Bauer provided an update on the ozone boundary designations. She stated that on October 26, 2015, EPA published a final notice to strengthen the eight-hour ozone standard from 0.075 to 0.070 parts per million (ppm). On September 27, 2016, the Governor submitted Arizona's designation recommendations for attainment/nonattainment to EPA based upon 2013 through 2015 ozone monitoring data. EPA sent letters to states extending the deadline for designations by one year across the board on June 6, 2017. Ms. Bauer indicated that on August 10, 2017, EPA withdrew the one year extension for designations due to the threat of lawsuits. She noted that EPA would consider extensions on a case by case basis. Ms. Bauer stated that on December 20, 2017, EPA sent a letter to the Governor with EPA's preliminary response to Arizona's recommendation.

Ms. Bauer presented Arizona's recommended boundary designation for the 2015 ozone standard with the data-contingent alternatives that were submitted in September 2016. The recommended boundary designation was to expand the current boundary to include two violating monitors outside the nonattainment area. The two monitors are the Queen Valley monitor in Pinal County and the Tonto National Monument monitor in Gila County. Ms. Bauer stated that when the recommendation was made both of the monitors were slightly over the ozone standard at 0.071 ppm. She indicated that the Tonto monitor is in the Tonto National Forest and the Queen Valley monitor is on the border of the Tonto National Forest. Ms. Bauer reported that vegetation contributes to ozone concentrations. She noted these two monitors were analyzed by ADEQ and stakeholder meetings were conducted on these monitors. She stated that Arizona's recommendation to EPA included three data-contingent alternatives if one or both of these monitors would meet the standard based upon the next year's monitor data. Ms. Bauer indicated that it provided a positive path forward should the monitors come into compliance.

Ms. Bauer stated that on December 20, 2017, EPA sent a letter to the Governor with EPA's preliminary response to Arizona's initial recommendation. The letter stated that EPA intends to agree with one of the Arizona recommended boundary options. Ms. Bauer indicated that the two monitors are violating the standard. She mentioned that the monitors are again slightly over the standard. The Queen Valley monitor is currently at 0.073 ppm and the Tonto monitor is at 0.072 ppm. The current nonattainment area is 5,017 square miles. Ms. Bauer displayed a map of EPA's intended ozone boundary designation, which expands the boundary to include the Queen Valley and Tonto monitors. She stated that the red dots on the map indicate violating monitors and the green dots are monitors that are in compliance for the 2015 ozone standard. She indicated that 10 monitors, out of 20 monitors, are violating the 2015 ozone standard. Ms. Bauer stated that the current ozone nonattainment area is not in compliance with the tightened 2015 ozone standard.

Ms. Bauer displayed the three-year average of the fourth highest ozone concentration at the Tonto National Monument and Queen Valley monitors from 2002-2017. She discussed the downward trend. She noted that it is not a perfect line down; however, the general trend is downward. Ms. Bauer stated that there was an uptick in the ozone concentrations for 2015-2017. She mentioned that future ozone concentrations are unknown; however there is some encouragement. She stated that in 2017, the EPA Tier 3 tighter tailpipe standards began on model year 2017 vehicles which is encouraging for lowering ozone concentrations. In addition, EPA Tier 3 fuel standards have started which may positively impact ozone concentrations. Ms. Bauer added that the Queen Valley and Tonto monitors are impacted by their location in proximity to natural vegetation from the Tonto National Forest.

Ms. Bauer presented the eight-hour ozone monitoring data for the highest three-year average of the fourth highest eight-hour ozone concentration in the Maricopa nonattainment area. She stated that the region does not meet the strengthened 2015 ozone standard of 0.070 ppm. However, Ms. Bauer indicated that based upon preliminary monitoring data, it appears that in 2017 the region met the 2008 eight-hour ozone standard of 0.075 ppm. She noted the downward trend of the ozone concentrations in the region. Ms. Bauer added that it is not a straight line down and meteorology largely influences ozone concentrations.

Ms. Bauer discussed the emerging issue of background ozone. She indicated that as EPA tightens the ozone standard, the background ozone concentrations become a larger percentage

of an area's ozone concentration. Ms. Bauer stated that background ozone cannot be controlled at the state or local level. Background ozone includes: natural sources such as plants, vegetation, trees, wildfires, and stratospheric ozone intrusion; transport from other states; and international transport. EPA estimated that in 2017 background ozone comprises 52 percent of the ozone concentration in the current Maricopa nonattainment area. EPA also estimated that 67 percent of the ozone concentrations at the Queen Valley monitor and 64 percent of the concentration at the Tonto monitor is background ozone.

Ms. Bauer presented a map of the EPA estimated background ozone concentrations for the United States. She noted that the highest ozone concentrations appear in red, orange, and yellow. Ms. Bauer stated that the intermountain west has the highest background ozone concentrations due to: high elevations that capture transport; rural locations; federal land; storms that begin in the west and weaken as they move east; and stratospheric ozone intrusions. Ms. Bauer noted that EPA is aware of the issues background ozone presents and are analyzing options to address background ozone.

Ms. Bauer discussed the ozone boundary issues. Background ozone is a larger percentage of an area's ozone concentration with the lower 2015 ozone standard. Ms. Bauer stated that when ozone boundary designations are drawn for nonattainment areas, tighter controls apply to business and industry inside the nonattainment area. She indicated that if the boundary is expanded, there will be tighter controls on business and industry in Pinal County. Transportation conformity requirements will also apply. Ms. Bauer commented that Pinal County is expected to grow; tighter controls on business and industry could negatively impact economic development in which MAG and the MAG member agencies have been trying to encourage economic development after the recession. She mentioned that there are approximately 314,000 trips made from Pinal County to Maricopa County per day. The Pinal County Air Quality Department indicated that the proposed expanded area is required to go through the ADEQ Vehicle Emissions Inspection Program and has some of the same requirements for point and area sources. Ms. Bauer noted that throughout the area in Pinal County that the boundary would be expanded, ozone controls are already in place. She added that the location of the Queen Valley monitor near the Tonto National Forest adds biogenic sources.

Ms. Bauer stated that a lawsuit filed to challenge the 2015 ozone standard by Arizona, Arkansas, New Mexico, North Dakota, and Oklahoma is on hold in the D. C. Circuit Court of Appeals. In addition, EPA continues to review whether to rescind the October 2015 decision to strengthen the ozone standard.

Ms. Bauer stated that Maricopa County, Pinal County, and ADEQ all have air quality monitors. She discussed that the monitor network could be evaluated to ensure that monitors are not duplicative. Ms. Bauer indicated that Maricopa County and ADEQ found a duplicative monitor in the past. She reviewed that the Queen Valley monitor is a downwind monitor that is in place to capture concentrations that originate from the Maricopa County nonattainment area. Ms. Bauer stated that it may not be prudent to locate it next to a forest/natural vegetation that can cause increases in ozone concentrations. She indicated that the Apache Junction monitor is also located downwind not far away from the Queen Valley monitor. Ms. Bauer stated that an evaluation of the monitor network could ensure that monitors are properly located. Ms. Bauer commented that the monitors are in place to protect public health; however, duplicative monitors have been found in the past. She provided an example of duplicating monitors.

Ms. Bauer discussed possible Congressional relief from House of Representatives Bill 806 Ozone Standards Implementation Act and Senate Bill 452 Ozone Regulatory Delay and Extension of Assessment Length Act. She indicated that the bills have not yet been passed by Congress; however, that they include: postpone nonattainment designations by EPA until October 25, 2025; establish a 10-year cycle for review of National Ambient Air Quality Standards (NAAQS); and consideration of technological feasibility in setting air quality standards. Ms. Bauer stated that the H.R. Bill 806 went through the House of Representatives and that it is still part of the ongoing 2018 Congressional session.

Ms. Bauer provided the EPA ozone boundary designation schedule. The EPA deadline for states to submit comments is February 28, 2018. On April 30, 2018, EPA will finalize the designations, classifications, and attainment dates based upon 2014-2016 ozone monitoring data. Ms. Bauer indicated that attainment dates from 2020 to late 2037 will be set based upon ozone levels in the area ranging from Marginal to Extreme.

Ms. Bauer thanked the Committee. She stated that the purpose of her presentation was to provide an update for the Committee and to share the uncertainties with the ozone boundary designations. Ms. Bauer indicated that the boundary designations stay with an area, even when the standard is attained. She noted that the ozone boundary designation is on the agenda to be discussed at the MAG Regional Council meeting on January 31, 2018.

Mr. Denby asked if MAG plans on submitting comments by February 28, 2018. Ms. Bauer replied that this will be discussed at the January meeting of the MAG Regional Council, who is the decision making body at MAG.

Amanda McGennis, Associated General Contractors, inquired about the process of removing or moving a duplicating monitor. Ms. Bauer responded that ADEQ recently relocated some Photochemical Assessment Monitoring System instrumentation from the Queen Valley monitor. She indicated that it is challenging to remove a monitor; however, if a monitor is duplicative, a request can be made to EPA to have it changed. Ms. Bauer commented that if it is determined that the Queen Valley monitor is necessary for downwind purposes, could the monitor be moved to a location farther away from the Tonto National Forest. She added that there are already monitors located in the forest, Humboldt Mountain and Blue Point are monitors located in the forest.

Ms. Valenzuela asked about attaining the 2008 ozone standard. Ms. Bauer replied that the nonattainment area has met the 2008 ozone standard based upon preliminary air quality monitoring data. She stated that MAG staff is working with Maricopa County and ADEQ on compiling exceptional event documentation to be submitted to EPA for an event that occurred on July 7, 2017 due to a wildfire.

Brian Parkey, Arizona Department of Environmental Quality, noted that the Ozone Implementation Rule has not yet been finalized. He stated that one of the options proposed by EPA was revoking the 2008 ozone standard when the 2015 ozone standard is finalized. Ms. Bauer added that if a standard is revoked by EPA and the area was a nonattainment area for that standard, transportation conformity still applies.

Joe Gibbs, City of Phoenix, asked about the Queen Valley and Tonto monitors if the ozone boundary is expanded. Ms. Bauer replied that ADEQ could better answer that question since

they are ADEQ monitors. She stated that if EPA were to expand the boundary, due to monitor locations and the fact that they are over the 2015 standard, ADEQ would need to work with EPA to move the monitor location. Ms. Bauer indicated that EPA has a set of monitor regulations.

Mr. Gibbs inquired about the amount of flexibility with regard to moving the monitors due to the location near the Tonto National Forest. Ms. Bauer responded that ADEQ would have to propose a case to EPA. She mentioned that in the past, there were two monitors located in close proximity to each other on Grand Avenue that created issues.

Mr. Parkey responded that it would be challenging to move either the Queen Valley or Tonto monitor, especially since they are violating the 2015 ozone standard; however, it could be pursued. Ms. Bauer indicated that it would be a challenge; however, there may be a case in that the Queen Valley monitor that is in place to monitor downwind concentrations, is located next to a forest. She stated that EPA estimates that 67 percent of the ozone concentrations for the Queen Valley monitor is due to background ozone. Ms. Bauer noted that background ozone cannot be controlled. She noted that the possible boundary expansion into the Tonto National Forest due to the Tonto monitor in Gila County creates a challenging situation with regard to background ozone.

Mr. Parkey discussed a monitor in Yuma County that is approximately 90 percent background ozone that is going into a nonattainment area. He stated that it is difficult to move a monitor when it is violating the NAAQS. Ms. Bauer stated that fortunately EPA has provided estimates on background ozone. She stated that ADEQ has done a great job at testifying in Congress on Yuma and stating that there are other areas in Arizona that struggle with background ozone.

7. Draft MAG 2016 Inventory of Unpaved Roads

Randy Sedlacek, Maricopa Association of Governments provided a presentation on the draft MAG 2016 Inventory of Unpaved Roads. On May 23, 2007, the MAG Regional Council directed MAG to develop an unpaved roads inventory for the PM-10 nonattainment area. Mr. Sedlacek stated that the unpaved roads inventory is primarily used to track progress in eliminating unpaved roads. He indicated that the initial unpaved roads inventory was completed in 2009. Mr. Sedlacek explained that MAG Geographic Information Systems (GIS) staff utilized aerial images to develop the draft unpaved road maps that were sent to MAG member agencies for their review. The revisions made by MAG member agencies on the review maps were incorporated into the 2009 inventory.

Mr. Sedlacek outlined the steps to update the 2016 unpaved road inventory. The unpaved road inventory was updated with the following: unpaved road 2016 data from the MAG member agencies using tracking spreadsheets; MAG Congestion Mitigation and Air Quality Improvement and Transportation Improvement Plan paving data for 2016; aerial image analysis and GIS analysis performed by MAG GIS staff; and annotated unpaved road maps received from MAG member agencies after review of draft maps. The following unpaved roads were not included in the inventory: alleys, agricultural roads, canal roads, closed unpaved roads, easements, restricted access roads, and utility roads. Mr. Sedlacek indicated that these roads were not included in the inventory due to little traffic or inaccessibility by the public.

Mr. Sedlacek displayed the year 2016 unpaved roads summary that includes the miles of unpaved public and private roads. He indicated that the number of miles for public and private unpaved

roads are also included for the following categories: cities and towns; the unincorporated Maricopa County; unincorporated Pinal County; federal land; and Tribal Communities and Nations. Mr. Sedlacek stated that in 2016 it is estimated that there were approximately 369 miles of public unpaved roads and 974 miles of private unpaved roads for a total of 1,343 total unpaved roads. He indicated that there are more private unpaved roads than public unpaved roads in which a majority of the private unpaved roads are in unincorporated Maricopa County. The total miles of public unpaved roads decreased approximately 244 miles when compared to the 2009 inventory. The total miles of private unpaved roads decreased approximately 297 miles when compared to the 2009 inventory. The decrease in public unpaved roads is due to: paving of public unpaved roads; closing of public unpaved roads; reclassification of public unpaved roads; and blockage of public unpaved roads. The decrease in private unpaved roads is due to: paving of private unpaved roads and reclassification of private unpaved roads.

Mr. Sedlacek stated that in 2011 a MAG GIS contractor conducted an extensive field survey of private unpaved roads in the nonattainment area to identify private unpaved roads that may have been misclassified. For example, the consultant found that some canal roads had been misclassified as private unpaved roads. The misclassified roads were removed from the inventory.

Mr. Sedlacek presented a regional map showing public unpaved roads and PM-10 monitors in the PM-10 nonattainment area. Public unpaved roads are denoted as red lines and PM-10 monitors as red circles. Mr. Sedlacek noted that in review of the map, most of the public unpaved roads are on the periphery of the nonattainment area and are not located near most of the PM-10 monitors. He stated that the PM-10 nonattainment area boundary is denoted as the orange line and the Tonto National Forrest is the tan area.

Mr. Sedlacek displayed a regional map showing private unpaved roads and PM-10 monitors in the PM-10 nonattainment area. Private unpaved roads are denoted as blue lines and PM-10 monitors as red circles. Mr. Sedlacek noted that in review of the map, most of the private unpaved roads are also on the periphery of the nonattainment area and are not located near most of the PM-10 monitors.

Mr. Gibbs inquired about the methodology to inventory private unpaved roads. Mr. Sedlacek replied that original inventory utilized aerial image analysis and when the inventory is updated MAG sends out unpaved road tracking sheets in which MAG member agencies are asked if there have been any changes to private unpaved roads. In addition, MAG GIS staff will also analyze aerial images. Mr. Gibbs asked if the MAG member agencies generally know of private unpaved road changes. Mr. Sedlacek responded that typically the jurisdictions do not have information on private unpaved road changes.

Beverly Chenausky, Arizona Department of Transportation, inquired about the monitor numbers on the regional maps for Fort McDowell Yavapai Nation and Salt River Pima-Maricopa Indian Community. Mr. Sedlacek indicated that monitor 14 is Fort McDowell (Fort McDowell Yavapai Nation), monitor 15 is the Senior Center (Salt River Pima-Maricopa Indian Community), monitor 16 is Lehi (Salt River Pima-Maricopa Indian Community), monitor 17 is High School (Salt River Pima-Maricopa Indian Community), and monitor 23 is St. Johns (Gila River Indian Community).

8. Final Hidden Valley Monitor Area PM-10 Emissions Inventory

Mr. Poppen provided an update on the Final Hidden Valley Monitor Area PM-10 Emissions Inventory. He stated that on October 26, 2017, he presented the draft PM-10 emissions inventory for the Hidden Valley monitor to the Committee. Mr. Poppen stated that the Final Hidden Valley Monitor Area PM-10 Emissions Inventory was included in the agenda materials. The final document was updated to include the PM-10 exceedances, 38 total in 2017, that occurred at the Hidden Valley monitor in October, November, and December of 2017. Mr. Poppen noted that no other changes were made to the final document.

Mr. Poppen stated that the Pinal County Air Quality Control District, ADEQ, and MAG worked cooperatively on the Final Hidden Valley Monitor Area PM-10 Emissions Inventory. The purpose of the emissions inventory is to provide information to aid in the prevention of future PM-10 exceedances at the Hidden Valley monitor and throughout the nonattainment area, attain the PM-10 standard, and avoid reclassification to a Serious PM-10 nonattainment area. The Hidden Valley monitor began operation on January 1, 2016 as a replacement for the prior Cowtown monitor that is no longer in operation. Mr. Poppen stated that daily PM-10 emission inventories for the Hidden Valley monitor area were developed for two low wind and two high wind PM-10 exceedance days that occurred in 2016 to identify PM-10 sources. On low wind days, the emissions inventory domain is a two-mile radius around the Hidden Valley monitor and on high wind days, the emissions inventory domain is extended four miles out from the monitor based upon the wind direction of the high winds. The largest source category of PM-10 emissions on low wind days was fugitive dust from unpaved roads. The largest source category of PM-10 emissions on high wind days was either windblown dust from natural, desert lands or fugitive dust from unpaved roads. Mr. Poppen noted that every PM-10 source category, no matter the size, can cause an exceedance at the monitor if it is close enough or impacts the monitor.

Ms. Chenausky asked if the PM-10 emissions inventory for the Hidden Valley monitor will be part of a State Implementation Plan (SIP) Revision or other air quality plan. Mr. Poppen replied that the document is not for a SIP or air quality plan, it is an informational report requested by Pinal County Air Quality Department and ADEQ.

Mr. Gibbs inquired if there was an evaluation of unpaved lands, in particular if lands would develop a crust if undisturbed or if the lands are prone to windblown erosion. Mr. Poppen responded that windblown emissions were developed by ADEQ in which they utilized the same methodology that was developed for the State Implementation Plan for that nonattainment area. He stated that ADEQ put a lot of work into the SIP to create very detailed methodology that includes wind speeds, windspeed thresholds, and the emissions emitted on a windblown dust day depending on if there was a crust or not and the types of land use activity. Mr. Poppen stated that the methodology is discussed briefly in the Final Hidden Valley Monitor Area PM-10 Emissions Inventory, however the detailed methodology is located in the ADEQ SIP.

9. Tentative Meeting Schedule for the MAG Air Quality Technical Advisory Committee

Ms. Bauer stated that the tentative AQTAC meeting schedule for 2018 has been included in the agenda materials.

10. Call for Future Agenda Items

Chair McCullough indicated that the next meeting of the Committee has been scheduled for Thursday, February 22, 2018 at 1:30 p.m. She requested suggestions for future agenda items. With no further comments, the meeting was adjourned at approximately 2:50 p.m.